(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



1 (1881) BURNER IN BERNE HEIN BERN BEIN BURN 1 IN IN BELBE HEIN BEINE BURN BURN BERNE HEN BERNE HER HEEL HEEL HEEL

(43) International Publication Date 3 February 2005 (03.02.2005)

PCT

(10) International Publication Number WO 2005/010539 A1

(51) International Patent Classification⁷:

G01R 31/36

(21) International Application Number:

PCT/IB2004/002385

(22) International Filing Date:

26 July 2004 (26.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

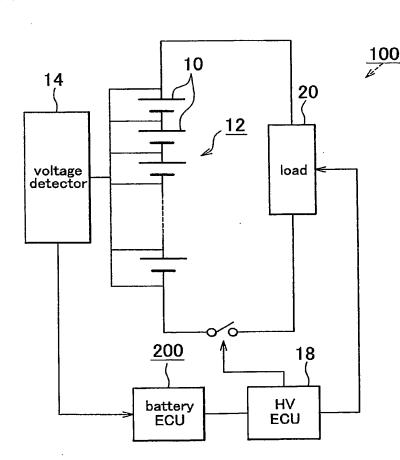
2003-281429

29 July 2003 (29.07.2003) JF

- (71) Applicant (for all designated States except US): TOY-OTA JIDOSHA KABUSHIKI KAISHA [JP/JP]; 1, Toy-ota-cho, Toyota-shi, Aichi-ken 471-8571 (JP).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ISHISHITA, Teruo [JP/JP]; c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: BATTERY PACK CAPACITY CONTROL SYSTEM



(57) Abstract: if the capacity variation (Od) is greater than a pre-stored value, the SOC converted from Omin sometimes cannot recover to a control center value. In such a case, incoveniences including the contination of an event where the HVECU(18) cannot output a command to stop the charging are prevented by computing an apparatus SOC and reporting the SOC to the HVECU (18). The apparent SOC is computed by increasing the value of SOC in accordance with the magnitude of the capacity variation (Qd). thus-computed apparent SOC is reported to the HVECU by the battery ECU, so that it can be determined that the control center value has been exceeded. Thus, it becomes possible to provide battery control apparatus, method and program and a battery control system for a battery pack which are capable of controlling the charging/discharging of the battery pack with an improved accuracy despite capacity variation (Qd).

WO 2005/010539 A1



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.